

Education Technology in California:

Current Status and Development of a New Master Plan

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Alliance for Distance Education Conference

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Connect, Compute, and Compete

- Issued in 1996 by the Superintendent's Education Technology Task Force
- Developed to assess the current state of technological readiness in California's classrooms and libraries
- Addressed the infrastructure, equipment, and support necessary to fully integrate technology into K-12 education

Key Issues

- Equipping every classroom and library with technology
- Promoting the effective use of technology
- Providing adequate professional development
- Supporting and maintaining the technology



Equipping Classrooms and Libraries

- Hardware
- Internet connectivity



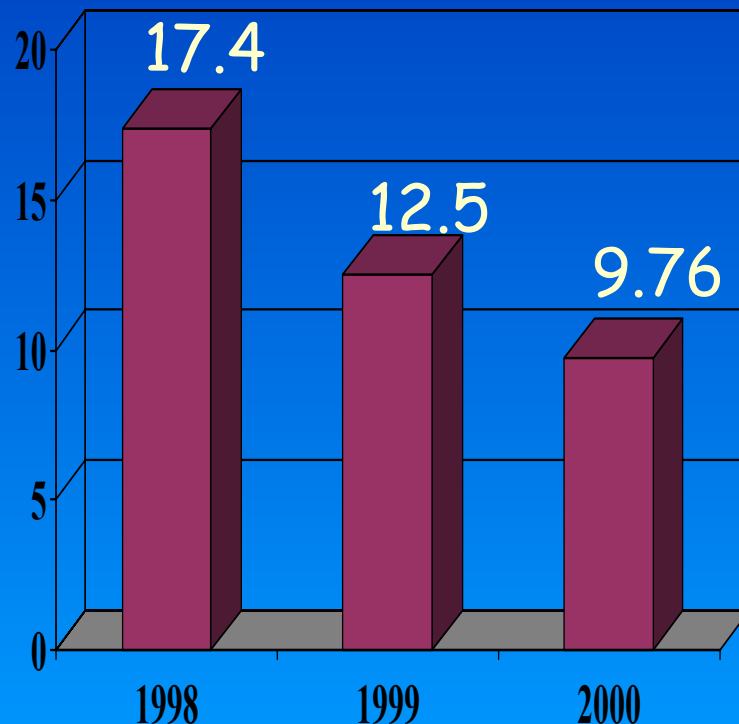
Status of Technology in 1995

- States with the best student-to-computer ratio had about one computer for every 6 students
- California had one computer for every 14 students
- Discounting obsolete equipment, California had one computer for every 73 students



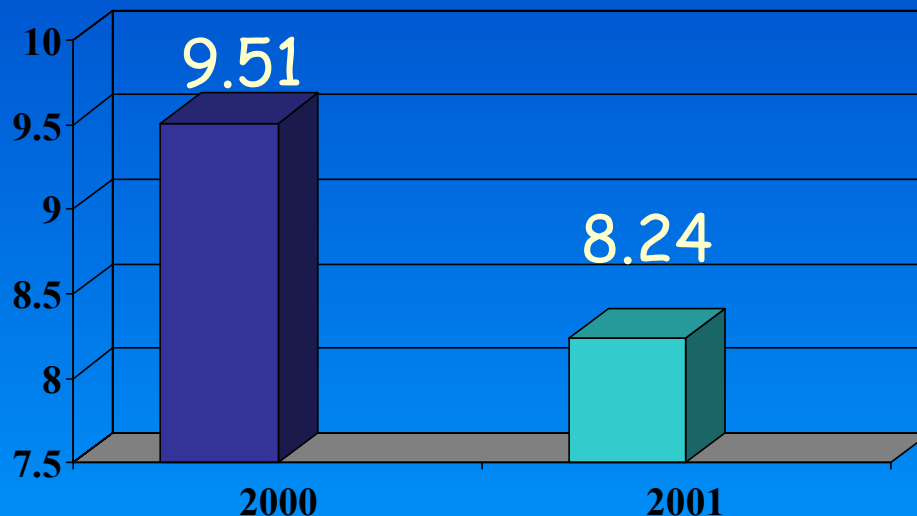
Student-to-Multimedia Computer Ratio

- As reported on CBEDS, our student-to-multimedia computer ratio improves every year



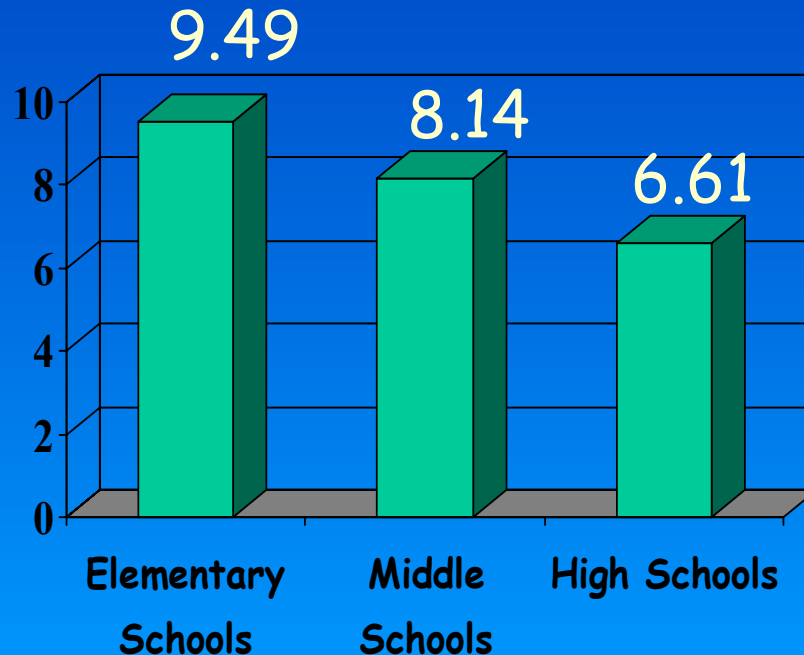
Student-to-Multimedia Computer Ratio

- Our School Technology Survey, also shows an improving student-to-multimedia computer ratio



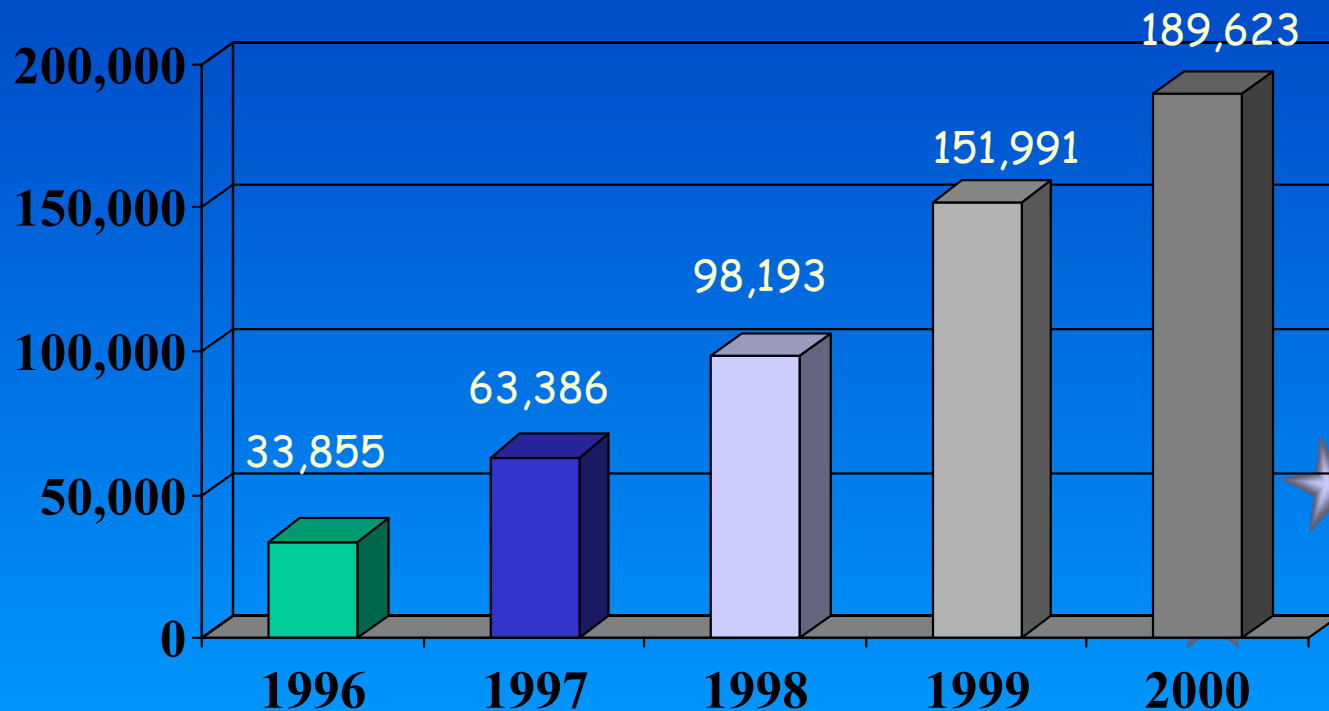
Student-to-Multimedia Computer Ratio

- The ratio is the lowest for high schools.
2001 survey data was:



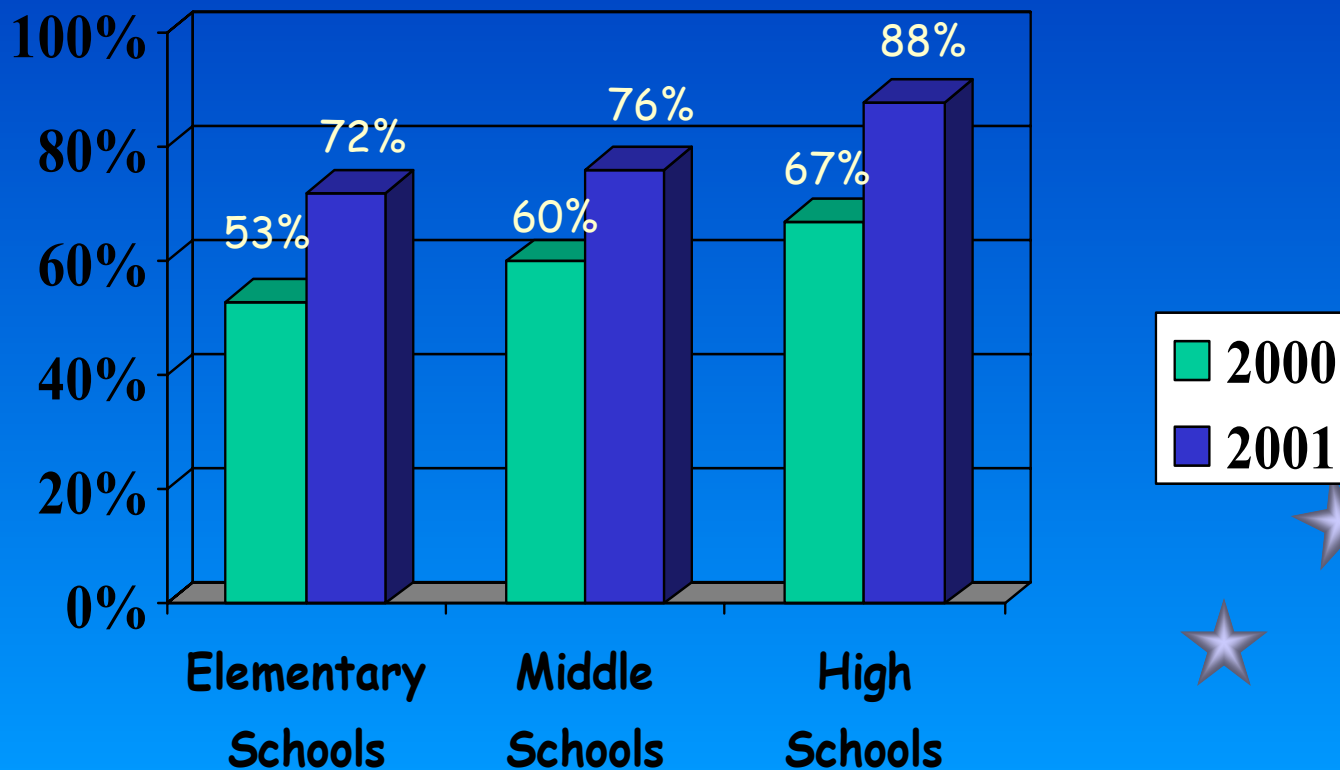
Internet Access

- The number of connected classrooms increases every year per CBEDS



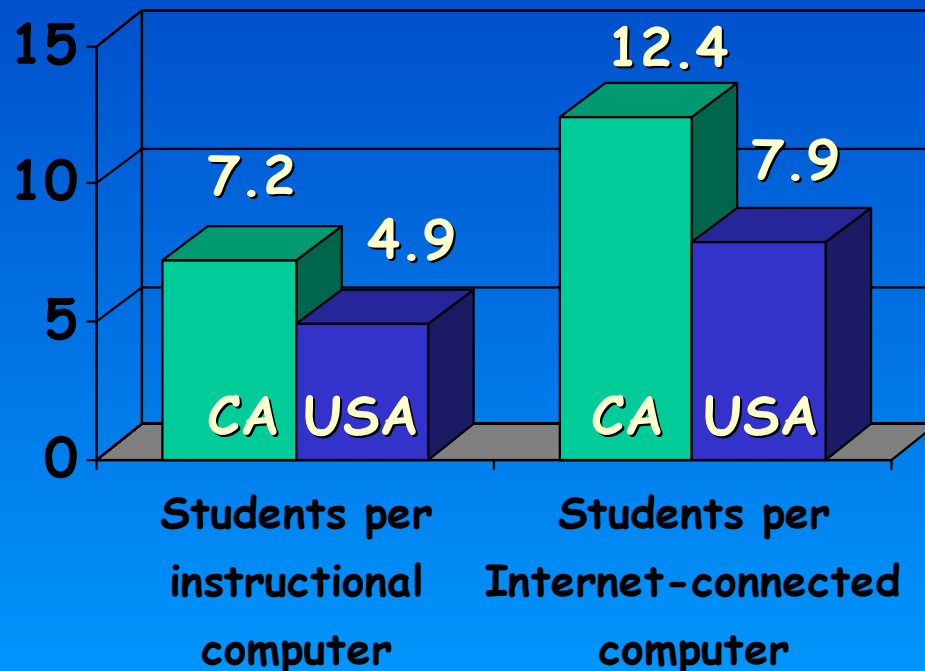
Internet Access By School Type

- The percent of connected classrooms is highest for high schools



California vs. National Average

The May 2001 edition of *Education Week* ranked California 50th in students-to-instructional multimedia computer and 49th in students-to-Internet connected computer





California's Digital Divide

- Schools with a high percent of students eligible for free and reduced price lunch are less likely to have computers and Internet access
- These students are also less likely to have computers at home



Commission on Technology in Learning

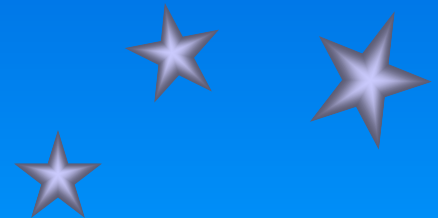
- Established by AB 598, Soto
- Is to work in collaboration with Curriculum Commission
- First task was local technology planning guidelines
- Next task is to develop updated Master Plan
- <http://www.cde.ca.gov/ctl/>





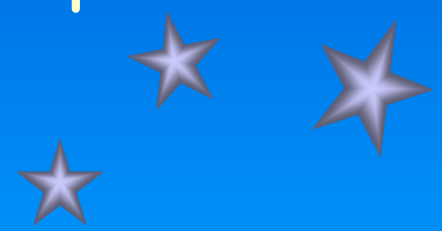
Process for Developing the Master Plan

- Seeking input on key questions
- Sponsoring technology summits to gather input on key topics
- Reviewing research and requesting "white papers" on key questions and related topics



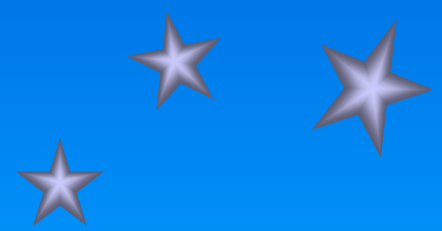


Key Questions

- How can technology be used as a tool to improve teaching and learning?
 - Given technology, how could schools look and act differently than they do today?
 - How can education technology help equalize access to education?
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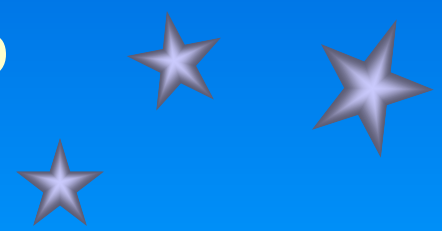


Key Questions

- How can California prepare teachers and administrators to be creative and imaginative users of technology in education supporting the state academic content standards?
 - What is the role of technology in preparing the new economy workforce?
- 



Key Questions

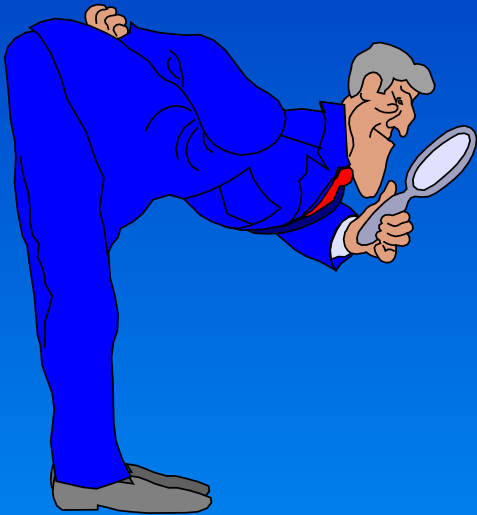
- How can schools stay informed about, incorporate, and maintain new technologies in a cost-effective way to promote educational goals?
 - What resources are available to promote the use of education technology?
 - What partnerships are available to promote the use of education technology?
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Effective Use of Technology

- Tool for teaching and learning
- Tool for school management



Impact of Technology: Research Findings



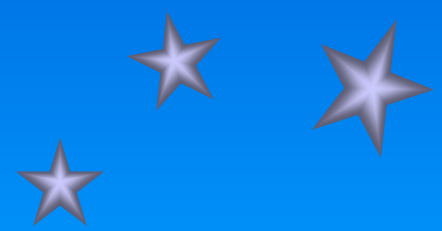
- Improved student achievement if certain conditions are met
- Improved attendance
- Lower teacher turnover
- Improved attitudes toward school



Technology Use

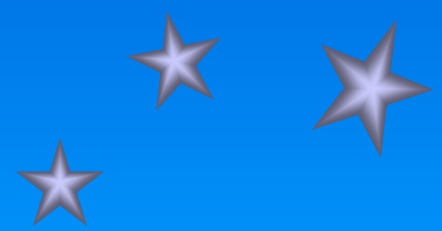
	Daily	2-5 Days/ Wk	Once/ Wk	Once/ Mo	Never
Reading/Language Arts	39%	32%	24%	3%	1%
Mathematics	27%	35%	28%	8%	2%
Science	12%	25%	41%	18%	4%
History	12%	25%	43%	18%	3%

Reported on the 2001 School
Technology Survey



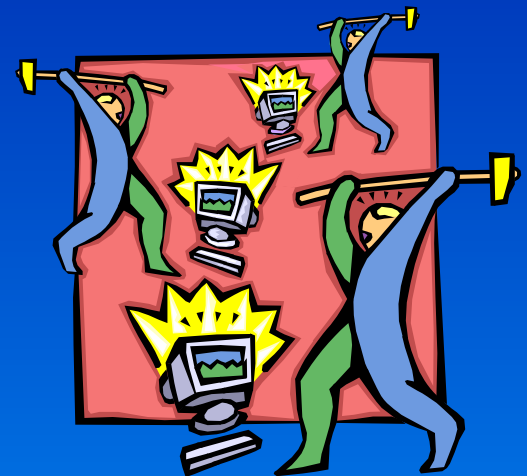


Leadership

- Technology can promote improved teaching, learning and school management
 - District and site leadership is key
 - New tech plan requirement presents an opportunity for leadership
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Technical Support

- Ongoing technical support and maintenance is critical
- Need to budget for support and replacement
- New tech plan requirement presents an opportunity to focus on the needs



2001 Survey Results



- 32% of schools wait more than a week, but less than a month for hardware problems to be repaired
- 11% wait a month or more
- 91% of schools had no technical support staff at the school site

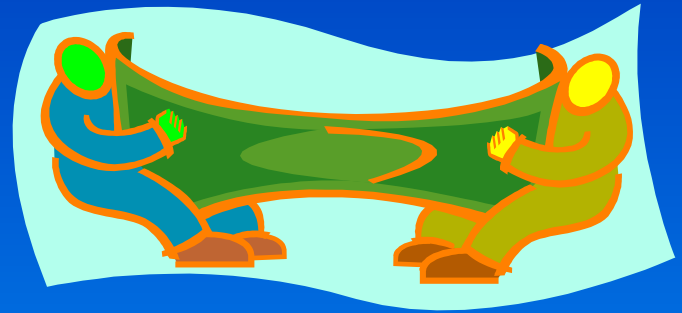
Curriculum Support in 2001

- Schools had an average of .14 certificated staff FTE for curriculum support
- 47% of schools had no certificated staff at the school site who provide curriculum support



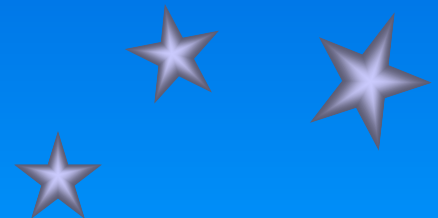
Impediments

- Competing priorities for funding
- California's economy
- Ongoing funding is required
- Questions about technology's contribution to student achievement
- Change takes time



New and Continuing Programs

- California Technology Assistance Project and statewide ed tech services
- Technology Literacy Challenge Grant
Digital High School, 4-8 Staff Development, E-rate and CTF, DCP
- School Renovation Classroom Technology
- Enhancing Education Through Technology



California Technology Assistance Project

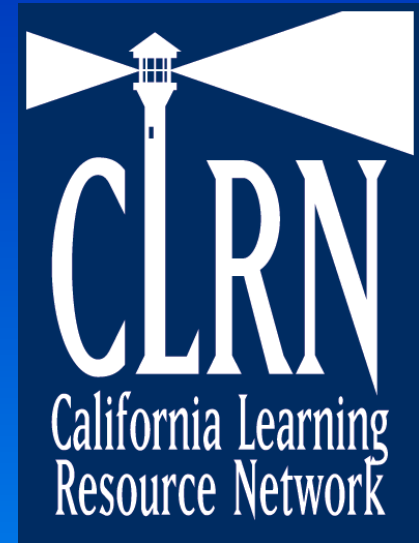


- Visit www.ctap.k12.ca.us to find your regional contacts
- Take advantage of CTAP services and expertise



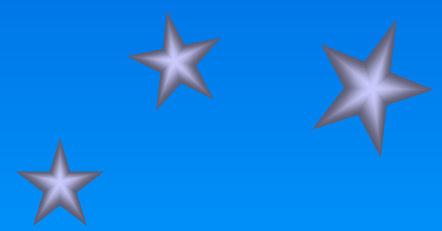
California Learning Resources Network

Purpose is to provide a
“one-stop shop” for the
identification of
electronic learning
resources that are
*aligned to standards and
linked to lessons.*





California Learning Resources Network

- Reviews electronic learning resources for alignment with State standards
 - Includes a searchable web site and links to other statewide ed tech services
 - Lesson builder and sample lesson plans coming in May
 - <http://www.clrn.org/>
- 

Technology Information Center for Administrative Leadership

- Helps district and site administrators be effective leaders of “digital schools”
- Provides a one-stop, online technology information center for administrators with resources and solutions
- <http://www.portical.org/>





CTAP² Website

California Technology Assistance Project
Technology Assessment Profile


A site for teacher self-assessment and
links to appropriate professional
development





<http://ctap2.iassessment.org>

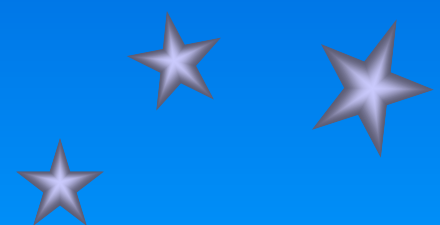
Features:

- Self assessment tied to CTC standard
 - Printable charts on proficiency level, growth over time, and technology use
 - Listing of appropriate professional development opportunities
 - Summary data for school, district, county, and state
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Technical Support Statewide Project

- Matrix of skills needed in various school settings
- Identify training options and cost effective training for school technologists
- Provide a help (desk) for California school technologists seeking resources and solutions
- www.techsets.org



Technology Literacy Challenge Grant

- Last year funded grants for technology planning, hardware, or both
- New funding opportunity for hardware funding for grades 4-8: APPLY by April 15th
- Funding will help lower student-to-computer ratio



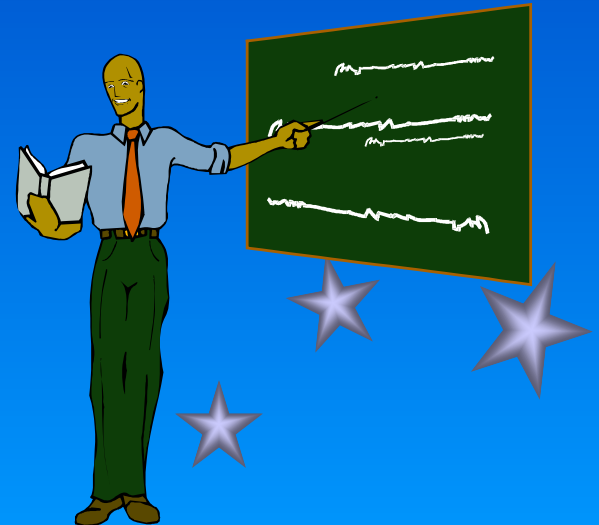
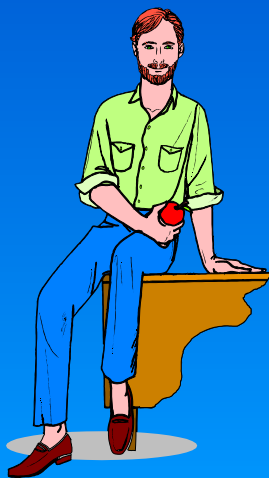
DIGITAL HIGH SCHOOL

- Provided one-time installation grants
- Provides ongoing funding for staff training and support
- Must apply every year for ongoing funding



Staff Development Program for Grades 4-8

- Provides up to \$20/student for schools with sufficient technology, Internet access, and an action plan for staff development
- Technology training is to be part of the ongoing staff development



E-rate



California has received nearly \$1 billion in E-rate discounts

- All should apply even though the application process is complex
- Discount based upon percent of students eligible for National School Lunch
- Priority goes to basic telephone service and Internet connections

California Teleconnect

- Easy application process -- only have to ask telephone provider
- Provides a 50% discount on certain telephone services



Digital California Project



Funded through UC to:

- Build a K-20 network
- Provide access to education resources

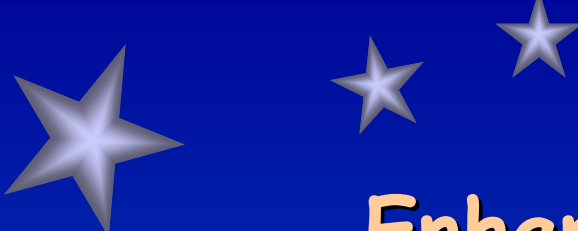
For more information, visit
www.cenic.org




School Renovation Classroom Technology

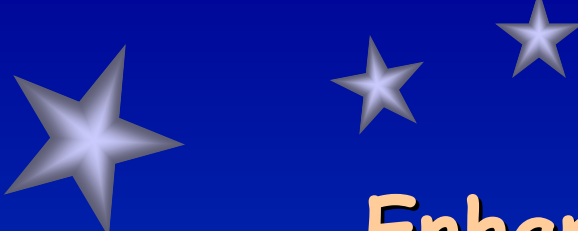
- New one-time federal program
- Application announced this spring and due next fall
- Will provide funding for 4-8 classroom hardware for schools recently renovated
- Eligibility is not limited to high-poverty districts





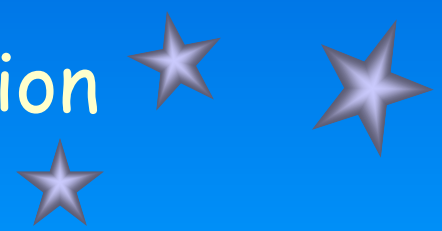
Enhancing Education Through Technology

- New name for reauthorized federal program
 - Increased focus on accountability
 - Strong focus on students reaching state standards
 - Emphasis on professional development and integration of technology into curriculum
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Enhancing Education Through Technology

- 50% of funding will be allocated via formula funding based upon Title I
- 50% of funding will be competitive
- An application will be required for both formula and competitive funding
- California will receive \$85.5 million



Conclusion

- Maintain focus on student achievement
- Develop and implement a solid tech plan
- Document impact of technology
- For more information, visit <http://www.cde.ca.gov/edtech>





Contact Information

- Information posted on the Commission's web site:
 - <http://www.cde.ca.gov/ctl/index.html>
- Contact the Commission via email at:
 - clt@cde.ca.gov
- Contact Nancy Sullivan, Mary Sprague, or Brandi Jauregui, staff, at (916) 323-5715

